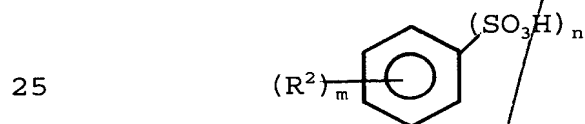


WHAT IS CLAIMED IS:

1. An applicator, comprising;  
a pad for treating a rubber, a  
5 thermoplastic elastomer, or a plastic wiper blade,  
said pad having at least one surface capable of  
receiving the rubber, the thermoplastic elastomer, or  
the plastic wiper blade and being wetted with an acid,  
wherein said acid is an alkyl sulfonic acid, or an  
10 aromatic sulfonic acid, or a metal salt thereof, and  
at least another surface substantially free  
of said sulfonic acid or said salt thereof.

2. An applicator pad according to claim 1,  
15 wherein said surface wetted with said sulfonic acid is  
a closed cell foam.

3. An applicator pad according to claim 1,  
wherein said alkyl group of said alkyl sulfonic acid  
20 has from 1 to 36 carbon atoms, and wherein said  
aromatic sulfonic acid has the formula



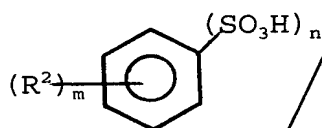
wherein m is an integer of 1 to 4, n is an integer of  
from 1 to 4, with the proviso that m + n is 6 or less,  
30 wherein each R<sup>2</sup>, independently, is an alkyl having from  
1 to 30 carbon atoms and optionally contains at least  
one halogen, nitro, alcohol, carbonyl, or carboxyl  
group thereon, or combinations thereof.

4. An applicator pad according to claim 3,  
35 wherein said sulfonic acid is said aromatic sulfonic  
acid and wherein each said R<sup>2</sup> group has a total of from  
about 9 to about 13 carbon atoms, and wherein said  
metal salt is an alkali metal.

40

acid, sulfonic acid, ascorbic acid, or combinations thereof.

15. A process according to claim 13,  
wherein said acid is  
an alkyl sulfonic acid of the formula  
 $R^1-SO_3H$  Formula I  
wherein  $R^1$  contains from 1 to 36 carbon atoms, or  
an aromatic sulfonic acid having the formula



or combinations thereof, or  
a metal salt of said alkyl sulfonic acid or  
said aromatic sulfonic acid, wherein  $m$  is an integer  
of 1 to 4,  $n$  is an integer of from 1 to 4, with the  
proviso that  $m + n$  is 6 or less, wherein each  $R^2$ ,  
independently, is an alkyl having from 1 to 30 carbon  
atoms and optionally contains at least one halogen,  
nitro, alcohol, carbonyl, or carboxyl group thereon,  
or combinations thereof.

316. A process according to claim 16,  
wherein each said  $R^2$  group has a total of from about 9  
to about 13 carbon atoms.

17. A process according to claim 16,  
wherein said acid is said aromatic sulfonic acid, or  
an alkali metal or an amine salt thereof, or  
combinations thereof.

18. A process according to claim 17,  
wherein said composition further contains one or more  
diluent.

19. A process according to claim 17,  
wherein said composition further contains one or more

5. An applicator pad according to claim 4, wherein each said R<sup>2</sup> group of said aromatic sulfonic acid contains from about 11 to about 13 carbon atoms.

5                   6. An applicator pad according to claim 5, wherein only one surface is wetted with said acid and the remaining surfaces are substantially free of said acid, wherein said surface wetted with said sulfonic acid is a closed cell foam, and wherein said wetted  
10 surface is a depression capable of receiving a wiper blade therein.

7. An applicator pad according to claim 4, wherein said sulfonic acid composition includes one or  
15 more lubricants, or diluents, or combinations thereof.

8. An applicator pad according to claim 4, wherein said sulfonic acid composition further includes one or more water miscible solvents, or one  
20 or more acids other than said sulfonic acid, or one or more agents to adjust the viscosity of said composition, or one or more rubber protectorants to protect said rubber, said thermoplastic elastomer, or said plastic wiper blade from oxidation, or one or  
25 more neutralizers, or one or more plasticizers or softeners, or combinations thereof.

9. An applicator comprising;  
a pad for treating a rubber, a thermoplastic  
30 elastomer, or a plastic wiper blade, said pad containing an acid thereon, said acid being an inorganic acid or an organic acid having from about 1 to about 30 carbons, or a metal salt of said organic acid, said pad having a portion which is capable of  
35 receiving said wiper blade and said acid being located on said wiper blade receiving portion.

10. An applicator pad according to claim 9, wherein said pad is a closed cell foam and wherein said pad has surfaces other than said wiper blade receiving surface and wherein said non-wiper blade receiving surfaces are substantially free of said acid.

11. An applicator pad according to claim 10, wherein said acid is said organic acid, or said metal salt of said organic acid.

12. An applicator pad according to claim 11, wherein said organic acid is an aromatic sulfonic acid having the formula



wherein  $m$  is an integer of 1 to 4,  $n$  is an integer of from 1 to 4, with the proviso that  $m + n$  is 6 or less, wherein each  $\text{R}^2$ , independently, is an alkyl having from 1 to 30 carbon atoms and optionally contains at least one halogen, nitro, alcohol, carbonyl, or carboxyl group thereon, or combinations thereof.

13. A process for treating a rubber, a thermoplastic elastomer, or a plastic wiper blade comprising;

applying a composition containing one or more acids to the wiping surface of said wiper blade, said acid comprising an inorganic acid, an organic acid having from about 1 to about 30 carbon atoms, or a salt of said organic acid.

14. A process according to claim 13, wherein said acid is boric acid, acetic acid, hydrochloric acid, citric acid, formic acid, sulfuric

Sub  
Sail

lubricants.

5                   20. A process according to claim 17,  
wherein said composition further contains one or more  
water miscible solvents, or one or more acids other  
than said sulfonic acid, or one or more agents to  
adjust the viscosity of said composition, or one or  
more rubber protectorants to protect said rubber, said  
thermoplastic elastomer, or said plastic wiper blade  
10 from oxidation, or one or more neutralizers, or one or  
more plasticizers or softeners, or combinations  
thereof.

15                   21. A composition for conditioning a  
rubber, a thermoplastic elastomer, or a plastic,  
comprising:

                  one or more sulfonic acids or a salt  
thereof, and

20                   further comprising one or more cyclic  
carbonyl containing compounds including a lactone, a  
lactam, and an oxazolidinone, and combinations  
thereof.

25                   22. A composition for conditioning a  
rubber, a thermoplastic elastomer, or a plastic,  
comprising:

                  one or more sulfonic acids or a salt  
thereof, and

30                   further comprising one or more solvents, one  
or more penetrants, one or more lubricants, one or  
more thickeners, one or more partial pH neutralizers,  
one or more plasticizers, one or more preservatives,  
one or more softeners, or combinations thereof.

35

23. A composition for conditioning a rubber, a thermoplastic elastomer, or a plastic, comprising:

one or more sulfonic acids or a salt thereof, and further comprising one or more lubricants.

24. A composition for conditioning a rubber, a thermoplastic elastomer or a plastic, comprising:

one or more sulfonic acids, or a salt thereof, and further comprising one or more penetrants.

25. A composition for conditioning a rubber, a thermoplastic elastomer, or a plastic, comprising:

one or more sulfonic acids or a salt thereof, and further comprising one or more water immiscible solvents.

26. A composition for conditioning a rubber, a thermoplastic elastomer, or a plastic, comprising:

one or more sulfonic acids or a salt thereof, and further comprising one or more thickeners.

27. A composition for conditioning a rubber, a thermoplastic elastomer, or a plastic, comprising:

one or more sulfonic acids or a salt thereof, and further comprising one or more preservatives.

5           28.   A process for cleaning a vehicle's windshield, whereby a liquid or gel cleaning composition is applied to the surface of that vehicle's wiper blade(s), which composition is capable of subsequently migrating to the surface of the windshield glass during operation of the blade in the presence of rain or other aqueous liquid, thereby cleaning said windshield.